UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/926,762	03/18/2002	Takanori Senoh	P21815	5794

7055 7590 10/03/2006	**EXAMINER**
GREENBLUM & BERNSTEIN, P.L.C.	DANG, HUNG Q
1950 ROLAND CLARKE PLACE	
RESTON, VA 20191	

ART UNIT	PAPER NUMBER
2621	

DATE MAILED: 10/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/926,762	SENOH, TAKANORI
	Examiner	Art Unit	
	Hung Q. Dang	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 March 2002*.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *2-13* is/are allowed.

6)☒ Claim(s) *1* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 March 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date *3/18/2002, 6/7/2004, 9/1/2004*.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set
forth in section 102 of this title, if the differences between the subject matter sought to be patented and
the prior art are such that the subject matter as a whole would have been obvious at the time the
invention was made to a person having ordinary skill in the art to which said subject matter pertains.
Patentability shall not be negatived by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over deCarmo

et al. (US Patent 6,708,334), Lin et al. (US Patent 6,574,417), Gupta et al. (US Patent

7,111,009), and Moriyama et al. (US Patent 6,006,004).

Regarding to claim 1, deCarmo et al. teach a trick play method for achieving a

trick play mode ("navigation" method, abstract) with a digital storage medium used to

record and reproduce multimedia content including compression coded digital audio and

video data (column 1, lines 34-41), the digital storage medium recording: (1) a directory

segmenting the content into program units, further segmenting the content into a

plurality of media object units, and recording each media object unit as a separate file

("main directory", "program object", and "video object, VOB" in column 1, lines 58-67;

column 2, lines 1-26).

However, deCarmo et al. do not teach: (2) a program manager file storing a

table containing an identifier (ID) for each program of recorded content and information

about the media objects in each program; (3) a media object information file storing a

table containing playback time information and entry points at a specific time interval for

each media object.

Lin et al. teach file structure used in DVD-VIDEO disk comprising: (2) a program

manager file storing a table containing an identifier (ID) for each program of recorded

content (Fig. 2; column 5, lines 23-34) and information about the media objects in each

program (column 4, lines 36-52); (3) a media object information file storing a table

containing playback time information (column 4, lines 53-67; column 5, lines 1-12) and

entry points at a specific time interval for each media object (column 4, lines 36-52).

One of ordinary skill in the art at the time the invention was made would have

been motivated to incorporate the program manager file and media objection

information file taught by Lin et al. into the file structure used to organize video data

recorded on the recording medium used in the navigation method taught by deCarmo et

al. because, according to Lin et al., it would help to minimize the burden of generating

conventional file structure and navigation data (column 3, lines 61-62).

The proposed combination of deCarmo et al. and Lin et al. above does not

disclose: (4) a playlist manager file containing playlist information including a user-

specified playback start program ID and the specified playback start time and end time

of said program.

Gupta et al. disclose a user-specified playlist (Abstract) used for multimedia

playback containing playlist information including a user-specified playback start

program ID and the specified playback start time and end time of said program (with

"source identifier" being the "program ID" in column 7, lines 22-31).

One of ordinary skill in the art at the time the invention was made would have

been motivated to incorporate the user-specified playlist taught by Gupta et al. into the

file structure system including a directory, program units, media object units, program manager file, and media object information file taught by deCarmo et al. and Lin et al. to provide a user-friendly interface by making the playback or recording in a multi-program playback or recording environment easier.

The proposed combination of deCarmo et al., Lin et al., and Gupta et al. does not disclose: said trick play method achieving a random access play mode by: (5) detecting the playback time of media object information in a specified program sequentially from the beginning of the specified program; (6) when a user specifies a playback start program ID and playback start time within said program; (7) detecting media object k at the user-specified playback start time; (8) detecting the entry point at the user-specified playback start time by subtracting a total playback time to the immediately preceding media object from the user-specified playback start time, and comparing the difference with a time search table resolution in the media object information for media object k; (9) reading and supplying to a decoder data for media object k from an entry frame of the media object data unit containing said entry point; (10) starting decoder output when decoding advances to the entry point; and (11) thereafter sequentially decoding media objects according to the playlist information and program manager file.

Moriyama et al. teach: a time search reproduction method to perform a search of a frame picture by: (5) detecting the playback time of media object information in a specified program sequentially from the beginning of the specified program when a user specifies a playback start program ID and playback start time within said program (column 27, lines 23 – column 28, line 25); (6) detecting media object k at the user-

specified playback start time (column 28, lines 20-25); (7) detecting the entry point at

the user-specified playback start time by subtracting a total playback time to the

immediately preceding media object from the user-specified playback start time (column

28, lines 26-29), and comparing the difference with a time search table resolution in the

media object information for media object k (column 27, 45-47); (8) reading and

supplying to a decoder data for media object k from an entry frame of the media object

data unit containing said entry point (see Fig. 8, the decoder including components 86,

87-95 and in column 28, lines 37-42); (9) starting decoder output when decoding

advances to the entry point (see Fig. 8, the decoder including components 86, 87-95

and in column 28, lines 37-42); and (10) thereafter sequentially decoding media objects

according to the playlist information and program manager file (see Fig. 8, the decoder

including components 86, 87-95 and in column 28, lines 37-42).

One of ordinary skill in the art at the time the invention was made would have

been motivated to apply the time search method used for reproduction taught by

Moriyama et al. into the multi-program data and management files recorded on the

recording medium taught by deCarmo et al., Lin et al., and Gupta et al. because,

according to Moriyma et al., it is a typical reproducing operation (column 27, lines 23-

26).

Allowable Subject Matter

Claims 2-13 are allowable for the following reasons:

The independent claims 2 and 3 recite a trick play method that identifies the

uniquely step: "detecting the entry point identified by a number determined by

calculating the difference of the interrupt time specified by the resume marker minus the total playback time to the immediately preceding media object, and dividing this difference by the time search table resolution in the media object information of media object k."

The closest prior arts deCarmo et al. (US Patent 6,708,334), Moon et al. (US Patent 6,757,480), Lin et al. (US Patent 6,574,417), Gupta et al. (US Patent 7,111,009), Moriyama et al. (US Patent 6,006,004), Kim et al. (US Patent 6,789,072), Mobini (US Patent 5,715,176), and Kikuchi et al. (US Patent 6,532,334), either singularly or in combination, fail to anticipate or render the limitations cited above obvious.

Specifically, Also, Moriyama et al. disclose a time search operation to perform a search of a frame picture of a data stream recorded on a recording medium by comparing the specified playback time and playback time of media objects with respect to a time resolution unit and moving the optical pickup accordingly (column 27, line 23 – column 28, line 25), then taking the difference of the search time minus the total playback time to the immediately preceding media object (column 28, lines 26-29). However, Moriyama et al. do not disclose the further sub-step of the dividing the difference by the time search table resolution in the media object information of media object k.

Furthermore, Mobini discloses a formula to calculate the time position from the frame position by dividing the frame position by the frame rate, which has unit of time resolution (column 5, lines 28-55). However, the difference from the claimed invention is

that the result of the subtraction has unit of time, not frame position. Hence, the teachings of prior arts cannot be combined.

The independent claims 4, 7-9, 12-13 identify the uniquely feature: "recording management information including a time search table defining a time search entry at each specific time interval ΔT from a beginning of each media object, a playback time for each media object, and a playback start time for a specified program; and the time search table containing an offset OF indicating a data length from a beginning of the specified program to a beginning of a media object data unit MODU containing the time search entry, and a frame count FN indicating a number of frames from the beginning of the media object data unit MODU to the time search entry."

The closest prior arts, Kim et al. (US Patent 6,789,072), Moriyama et al. (US Patent 6,006,004), deCarmo et al. (US Patent 6,708,334), Mobini (US Patent 5,715,176), Lin et al. (US 6,574,417), and Kikuchi et al. (US Patent 6,532,334) either singularly or in combination, fail to anticipate or render the limitations cited above obvious.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Q. Dang whose telephone number is 571-270-1116. The examiner can normally be reached on M-Th:7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hung Dang
Patent Examiner